

Appl. No. 10/708,502  
Amdt. dated November 02, 2005  
Reply to Office action of August 10, 2005

### **REMARKS/ARGUMENTS**

#### **Regarding amendments to the claims:**

Claims 1-39 are amended to overcome the objections set forth on the following detailed Office action, emphasize the characteristics of the claimed invention, and in the interests of clarity is reproduced above in toto. No new matter is entered by the above amendments.

#### **1. Regarding the Office action, dated 08/10/2005:**

Claims 1, 3, 6, 15, 17, 20, 28, 30, 33 and 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagahara (US 2002/0192945, dated 12/19/02). Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Harada et al. (US 6,251,774, dated 6/26/01). Claims 1 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Ma (US 2003/0216036, dated 11/20/03, filed 6/5/03). Claims 1 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang (US 2003/0166345, dated 9/4/03, filed 3/2/02). Claims 2, 4-5, 7-14, 16, 18-19, 21-27, 29, 31-32, 34-35 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagahara (US 2002/0192945, dated 12/19/02).

#### **Response:**

Claims 1-39 have been amended to overcome the rejections. According to the amended claims, a method of forming a dual damascene structure is disclosed, in which the method principally includes utilizing a conductive region on a substrate as a first alignment; forming a hard mask on the surface of an insulating layer; forming at least one via and one recess by removing portions of the hard mask and portions of the insulating layer; forming a light blocking layer on the surface of the hard mask and the recess, in which the light blocking layer and the hard mask form a composite altogether; and aligning a photo mask with the recess by utilizing the composite layer as a mask, in which

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the recess is utilized as a second alignment mask and light is prevented from reaching the first alignment mark by the composite layer when aligning the photo mask with the second alignment mark to achieve two direct alignments. Preferably, the recess of the claimed invention is formed at the same time as the via of the dual damascene structure,  
5 in which the recess is utilized as the second alignment mark for aligning the photo mask. In other words, the claimed invention discloses a method of utilizing two different alignment marks to achieve two direct alignments, in which the first alignment mark utilizes the conductive region of the substrate and the second alignment mark utilizes the recess.

10 In contrast to the claimed invention, the methods disclosed by Nagahara, Harada et al, Ma, and Chang all involves performing two alignments by utilizing only one alignment mark. According to the method of forming dual damascene structures by Nagahara, Harada et al, Ma, and Chang, only the conductive region formed on the substrate is utilized as the single alignment mark, in which the recess taught is in fact the  
15 via of the dual damascene structure, and has never been suggested to be utilized as an alignment mark in any way.

According to Chapter 2112 in the MPEP, in relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the  
20 determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. Since the inherency of a method of first utilizing the conductive region as a first alignment mark and then utilizing a recess as a second alignment mark does not flow from the teachings of Nagahara, Harada et al, Ma, and Chang, the amended claims 1-39 should be novel based on the above analysis. Reconsideration of the amended claims  
25 1-39 is politely requested.

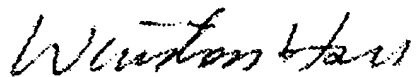
Applicant respectfully requests that a timely Notice of Allowance be issued in this

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case.

Sincerely yours,

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Date: Nov. 02, 2005

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Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C.  
15 is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)